

REMARKS

Claims 1-29 are pending. By this response, claims 1, 10, 17 and 26 are amended and claim 27 is cancelled. Reconsideration and allowance based on the amendments and the following remarks are respectfully requested.

The Office Action rejects claims 1-3, 5, 8-12, 14, 17-19, 21, and 24-27 under 35 §103(a) as being unpatentable over Merli et al. (USP 6,088,141) in view of Fee et al. (USP 5,914,794); claims 4, 6, 13, 15, 20, 22 and 28 under 35 USC §103(a) as being unpatentable over Merli, Fee, and Tada et al. (USP 5,532,862) and claims 7, 16, 23 and 29 under 35 USC §103(a) as being unpatentable over Merli, Fee, and Cohen et al. (USP 4,736,359). These rejections are respectfully traversed.

Merli discloses a system which is designed to operate in conjunction with a network manager. The network management system 116 is connected to each of the nodes within Merli's system. Within each node, two fault monitors are provided to detect any errors that have occurred. The detection of a fault is communicated to a local control unit 255 that communicates information to a network management system. See column 4, lines 34-53 and column 6, lines 12-27. The network management system provides information to the other nodes. Thus, the network management system acts to oversee and relay information (i.e., faults) to each node about other nodes in the system.

The system of Merli is contrary to the present invention. Embodiments of the present invention transfer fault information directly from the node where the fault is detected. Thus, along with detecting the fault at the amplifier node, the

amplifier node directly transfers the fault information to the other nodes in the system. The fault information is not relayed to the other nodes through a central management system as taught by Merli.

Further, Fee fails to make up for Merli's deficiencies. Fee provides a system by which faults are detected by an amplifier node, contained within an amplification station, on a previous segment of optical fiber. The detected faults are then sent to and processed by an element manager contained within the amplification station. The element manager controls the faults detected at each amplifier node within the amplification station. When processed the element manager sends the fault information to the corresponding supervisory channel associated with the amplifier node that detected the fault. The supervisory channel then transfers the fault information to the optical cross connect controllers. See column 5, lines 42-67 to column 6, lines 1-16.

The fault in Fee's system is not sent to the next node, but is sent along a supervisory channel for receipt by the optical cross connect controllers. Each optical amplifier node detects a fault between its segment of optical fibers and transmits this information to the optical cross connect, and not to the next node as claimed in the present invention. Further, each amplifier node within the amplification station is managed by the element manager.

Further, one of ordinary skill in the art would not be motivated to combine the teachings of Fee with those of Merli. Merli teaches a system which utilizes a network management system for communication between the various nodes. Merli's system is specifically designed to transfer information from the local unit

within the node to the network management system where the network management system processes and transfers information to the nodes.

In contrast, Fee provides a system in which an element manager within an amplification station manages the various amplifier nodes within the station. When a fault is detected by one of the amplifier nodes on their particular optical fiber, the fault is sent to the element manager which then sends the fault information along the supervisory channel of the respective node to the optical cross connect controllers. Merli does not teach or suggest using a supervisory channel by which information can be sent without the use of a network management system.

Further, Merli's system has been designed to be controlled by a central management system, therefore, information must be transferred to the network management system in order for Merli's system to operate properly. It would require drastically changing the design of Merli's system in order to implement a system in which a central management system does not control the communication between the nodes.

Thus, the combination of Merli and Fee fail to teach or suggest, *inter alia*, an amplifier node coupled between the first node and the second node, the amplifier node is configured to detect a fault on an optical link connecting the amplifier node and the first node to generate a fault report upon detection upon a fault, the amplifier node is further configured to directly forward the fault report to the second node, as recited in claim 1.

The combination of Merli and Fee also fails to teach or suggest, *inter alia*, causing the amplifier node to generate a fault report reporting occurrence of the loss of signal condition and directly forwarding the fault report to the second node, as recited in claim 10.

Also, the combination of Merli and Fee fails to teach or suggest, *inter alia*, the at least one amplifier node as configured to detect a fault on an incoming optical link carrying optical signals into the amplifier node, generate a fault report upon detection of a fault, and directly forward the fault report to a neighboring node as recited in claim 17.

Further, the combination of Merli and Fee fails to teach or suggest, *inter alia*, generating a fault report reporting the loss of signal condition wherein the control logic is further configured to directly forward the fault report to a switching node to allow the switching node to initiate any switching action, as recited in claim 26.

Furthermore, Tada and Cohen fail to make up for the deficiencies of Merli and Fee. Therefore, in view of the above, Applicants respectfully submit that the combination of Merli and Fee fail to teach each and every feature of the claims as required. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Conclusion

For at least these reasons, it is respectfully submitted that claims 1-29 are distinguishable over the cited art. Favorable consideration and prompt allowance are earnestly solicited.

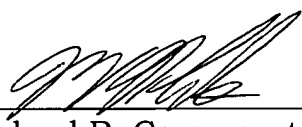
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By


Michael R. Cammarata, #39,491

MRC/CJB/jeb
4450-0270P

Attachment(s)

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000